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EDITORIAL

Vegetation Classification and Survey: development and diversification

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Abstract

We report on the completed second volume of Vegetation Classification and Survey (VCS), whose content grew by 41% compared to the first volume. We were able to diversify article types, geographic coverage, authors and editorial team, the latter now consisting of 62 researchers from 29 countries with a female ratio of 31%. Three newly started Special Collections focus on the vegetation of the most diverse continents, which are at the same time least represented in the international literature: Africa, Asia and Latin America. We highlight six outstanding papers of the previous year, among them Dembicz et al. (2021b, Vegetation Classification and Survey 2: 293–304), which received the Editors' Award 2021. In conclusion, we see a good perspective for the journal development and its inclusion in the leading citation databases, but the success strongly depends on authors and readers of VCS.

Abbreviations: IAVS = International Association for Vegetation Science; VCS = Vegetation Classification and Survey.

Keywords

Article processing charge, ecoinformatics, editorial, Editors' Award, electronic expert system, gold open access, International Association for Vegetation Science (IAVS), phytosociological nomenclature, scientific journal, syntaxon, vegetation classification, vegetation-plot database

Introduction

With this editorial, we open the third volume of Vegetation Classification and Survey (VCS), a gold open access journal of the International Association for Vegetation Science (IAVS). The second volume was successfully completed due to the efforts of Subject Editors, Linguistic Editors, reviewers, publisher and, of course, the authors. Compared to the first volume we could increase the content from 22 to 25 articles (+14%) and from 220 to 310 printed pages (+41%). Our reflection in the previous two editorials (Jansen et al. 2020; Willner et al. 2021) still remains true: Establishing a new journal is always a challenge, as in the initial years a journal is not so well-known, has no Impact Factor or Cite Score yet, while authors already have to pay article processing charges (APCs). As you will see in this editorial, we are on a good way.

PENSOFT

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Diversification, internationalisation and outreach

With "VCS Methods" and "Short Communication" we have introduced two new article types in 2021, bringing the total number of article types to 11. "VCS Methods" aim at presenting new methodological approaches or testing/comparing existing approaches in any field relevant to the scope of VCS (i.e. vegetation sampling, vegetation classification, ecoinformatics of vegetation). "Short Communications" in the Permanent Section "Phytosociological Nomenclature" are a specific format for validations and typifications of syntaxa.

Among the 25 papers published in the past year, most of the article categories were present: 10 "Research Papers", four "Nomenclatural Proposals", three "Reviews and Syntheses", two "Long Database Reports", two "Short Communications", one "Editorial", one "VCS Methods" paper, one "Report" and one "CCCN Report". The first authors came from 16 countries on five continents. Most prominent were first authors from Austria (5 papers), Australia, Germany, Slovakia, Spain and Poland (2 papers each).

The Permanent Collections **"Ecoinformatics"** (2 papers) and **"Phytosociological Nomenclature"** (7 papers) continued to flourish in 2021. The Special Collection **"Classification of grasslands and other open vegetation types in the Palaearctic"** (edited by Idoia Biurrun, Jürgen Dengler, Monika Janišová and Arkadiusz Nowak) is coming to an end with the last paper accepted just before the turn of the year, while the Special Collection **"The ´International Vegetation Classification´ initiative: case studies, syntheses, and perspectives on ecosystem diversity around the globe"** (edited by Don Faber-Langendoen, Wolfgang Willner, Changcheng Liu, John Hunter & Gonzalo Navarro) is still ongoing, with several more papers expected in this year. Moreover, VCS has just started three new Special Collections to stimulate vegetation classification on the three most diverse continents that are usually underrepresented in international journals (details to be found on the journal website under https://vcs.pensoft.net/collections):

- **African vegetation studies** (edited by Reginald Tang Guuroh, Miguel Alvarez, Leslie Brown, Manfred Finckh, Ute Schmiedel, Gaolathe Tsheboeng & Jürgen Dengler)
- **Grasslands of Asia** (edited by Jürgen Dengler, Idoia Biurrun, Pavel Krestov, Alireza Naqinezhad & Arkadiusz Nowak)
- **Neotropical vegetation** (edited by Gwendolyn Peyre, Bianca Andrade, Alejandro Velazquez & Melisa Giorgis)

In general, but particularly at the start of a new journal, we consider proper information and outreach as crucial. For our editorial team, we thus organised two editorial meetings online and published four VCS Newsletters. Further, both editors and authors are frequently popularizing the journal and its articles in the blog of the IAVS journals (https://vegsciblog.org/tag/vcs/). Finally, VCS also has a profile on Google Scholar (https://scholar.google.com/citations?hl=en&user=XsKKBm0AAAAJ), where you can see how often and by whom the hitherto 47 articles have been cited. By 7 January 2022, all articles together were cited 72 times (mean: 1.5), despite having only been online for about one year. The most cited article (11 citations so far) is by Zeballos et al. (2020).

Outstanding papers in 2021

Starting in 2021, the Chief Editors selected from the papers published in each quarter one Editors' Choice article, which was highlighted in the vegsciblog post and the VCS Newsletter. Moreover, at the end of the year, we selected one of the four Editors' Choice articles for the annual VCS Editors' Award, which is highlighted on the journal website and whose first author will receive a prize from Pensoft. Voting was conducted in a way that Chief Editors could not vote for their own papers.

The **Editors' Award 2021** goes to the Editors' Choice paper of the fourth quarter, **Dembicz et al. (2021b)**. The authors used more than 4,000 nested plot series from the GrassPlot database (https://edgg.org/databases/GrassPlot; see Dengler et al. 2018; Biurrun et al. 2021) to analyse how small-scale beta diversity varies between biomes and vegetation types of the Palaearctic non-forest vegetation. They used the exponent z of power-law species area relationships as a standardised measure of multiplicative beta diversity (Dengler et al. 2020; Dembicz et al. 2021a). For vascular plants, typological units explained a relevant part of small-scale beta diversity, with R^2 values increasing from biomes via ecological-physiognomic vegetation types to phytosociological classes, while for bryophytes and lichens much less of the observed variance could be explained. The authors provide the descriptive statistics (e.g. means, minima, maxima) of nested-plot z-values in an open-access database, which allows their use as benchmarks in future studies, similar to the alpha diversity benchmarks recently presented by Biurrun et al. (2021). Finally, Dembicz et al. (2021b) also condensed their findings to a conceptual model how different ecological and biological factors jointly could influence small-scale beta diversity, which can serve as basis for testing of specific hypotheses in the future.

Our **Editors' Choice paper of the first quarter** was by **Zeballos et al. (2021)**. Based on 92 plots from Central Argentina, they classified and characterised the diverse forests, savannas and scrublands in which the palm species *Trithrinax campestris* occurs. As Chief Editors, we consider the study methodologically sound, comprehensive and presented in an attractive and informative way for readers. It demonstrates that vegetation classification is not something that is mainly applied in the mostly anthropogenic vegetation types of Europe, but is also meaningful in natural vegetation types of highly diverse neotropical

ecosystems. In fact this paper is a follow-up to a previous study by the same authors, dealing with seasonally dry subtropical forests in the same region of Argentina (Zeballos et al. 2020).

Our **Editors' Choice paper of the second quarter** was by **Hunter et al. (2021)**. This "Review and Synthesis" paper is the outcome of a workshop by the IAVS Working Group on Vegetation Classification (WGVC) held on the IAVS Symposium in Bozeman, Montana. The authors compiled and compared the numerous different definitions and implementations of the "biome" concept, one of the most used and at the same time most ambiguous term in vegetation ecology. While the paper does not and cannot provide a definitive solution for the biome concept, it does propose ways forward based on the review of the existing concepts.

Our **Editors' Choice paper of the third quarter** was by **Shapoval and Kuzemko (2021)**. This syntaxonomic study deals with a quite unusual habitat type, called "pody". These are large, shallow depressions in the European steppe zone. At intervals of 7–12 years they are completely flooded, to become drier and drier in subsequent years, until the next flooding event happens. The authors used a large vegetation-plot dataset from the Ukrainian Grassland Database, which they subjected to unsupervised classification. The resulting nine terminal vegetation units were floristically characterised using phi-coefficients and syntaxonomically interpreted. The authors conclude that the plots of the "cyclic" chronosequence belong to not less than four phytosociological classes: *Festuco-Brometea*, *Molinio-Arrhenatheretea*, *Isoeto-Nano-Juncetea* and *Festuco-Puccinellietea*. The authors characterise the units by a synoptic table, verbal descriptions and photos. Moreover, since the units were only invalidly published before, they validate the names according to the International Code of Phytosociological Nomenclature. All in all an exemplary syntaxonomic study with modern methods based on a large dataset as we wish it to see in VCS.

We would like to highlight two more papers as they represent types of contributions that are central to the scope of VCS:

Janišová et al. (2021) was the first paper of the new article type **"VCS Methods"**. The authors presented a new approach to jointly sample vegetation and detailed information on land use practices in semi-natural grasslands to better understand the drivers of plant diversity. We believe that such methodological contributions can be highly valuable to readers and contribute substantially to the journal development. We thus particularly encourage such submissions.

Finally, **García-Mijangos et al. (2021)** was based on a particularly large dataset (839 plots) of high quality (balanced geographic distribution, narrow range of plot sizes, also bryophytes and lichens as well as soil parameters carefully recorded for a subset of plots) and thus stands out among the classification papers published so far in VCS. The paper is also interesting from a methodological point of view as the authors managed to translate an unsupervised TWINSPAN classification into a hierarchical electronic expert system that is able to classify close to 100% of all relevés. Last but not least, we would like to shed a light on the form of presentation: This paper demonstrates that comprehensive treatments in VCS can be considerably longer than the 8–12 pages "standard length" of many journals. The authors also made good use of colour photo plates to illustrate the described vegetation types and they provided online Supplementary material that can be useful for readers, namely the complete documented vegetation-plot data and files of the hierarchical expert system that can be directly run in JUICE (Tichý 2002) to classify new relevés from the region.

News and prospects for 2022

We are proud to announce that from January 2022 onwards Jorge Capelo (Portugal, but also working in Africa) and Arkadiusz Nowak (Poland, but mainly working in Middle Asia) have been appointed as Associate Editors. Further, we welcome Reginald Tang Guuroh (Ghana), Vanessa Leite Rezende (Brazil), Alireza Naqinezhad (Iran), and Gaolathe Tsheboeng (Botswana) as new members of our Editorial Board. This brings our complete editorial team, consisting of Chief Editors, Associate Editors, Linguistic Editors and Editorial Board members, to 62 researchers from 29 countries, with a female ratio of 31%. While this is better than in the majority of international journals, we are aiming at an even better geographic and gender balance in the future.

However, the most important news for 2022 is that IAVS is continuing its generous financial support and extended the waiver of article processing charges for first authors who are IAVS members until December 2022 (date of original submission counts). With this help, we hope to ensure the submission of a further increasing number of high-quality manuscripts and an inclusion of the journal in the Scopus and Web of Science literature databases to receive a Cite Score and an Impact Factor – which are, whether we like it or not, so important in the evaluation of scientists and research institutions. With two volumes successfully completed, our publisher, Pensoft, has filed the applications to both databases in early 2022. If everything goes well, VCS might become included in Scopus in mid-2022, and in Web of Science in mid-2023.

Last but not least, let us not forget: What counts most for the success of a journal is that many interesting articles of high quality are submitted, which are read and cited by you, our readers!

Author contributions

J.D. planned and drafted this editorial while all other authors made significant contributions.

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Appendix 1

Linguistic Editors for VCS in 2021

We thank the following colleagues for their invaluable contribution as Linguistic Editors for VCS (number of edited papers in brackets):

- Stephen Bell (1)
- Michael Glaser (2)
- Don Faber-Langendoen (3)
- Jim Martin (2)
- Megan McNellie (1)
- Emmeline Topp (3)
- Lynda Weekes (1)

Appendix 2

Reviewers for VCS in 2021

We thank the following colleagues who served during the last year as reviewers for VCS (number of reviews in brackets):

- Miguel Alvarez (1)
- Bianca Ott Andrade (1)
- Stephen Bell (1)
- Christian Berg (2)
- Erwin Bergmeier (3)
- Marcelo Cabido (2)
- Jorge Capelo (4)
- Simona Casavecchia (1)
- Jürgen Dengler (1)
- Daniela Dúbravková (1)
- Fabian Faßnacht (1)
- Maria Fungomeli (1)
- Antonio Galán de Mera (1)
- Dana Holubová (1)
- Don Faber-Langendoen (5)
- Federico Fernández-González (3)
- Scott Brian Franklin (1)
- Michal Hájek (1)
- Mati Ilomets (1)
- Carmen Josse (1)
- Anna Kuzemko (1)
- Javier Loidi (1)
- Zdeňka Lososová (1)
- Parastoo Mahdavi (1)
- José Antonio Molina Abril (1)
- Gonzalo Navarro-Sanchez (1)
- Jens Pallas (2)
- Tomas Peterka (1)
- Darien Eros Prado (2)
- Roger Sayre (1)
- Marco Schmidt (1)
- Jozef Šibík (1)
- Kateřina Šumberová (1)
- Ivana Svitková (1)
- Grzegorz Swacha (1)
- Krzysztof Świerkosz (1)
- Sebastian Świerszcz (1)
- Teemu Tahvanainen (1)
- Kiril Vassilev (2)
- Viktoria Wagner (2)
- Karsten Wesche (1)
- Wolfgang Willner (1)
- Sebastián Zeballos (2)